## WHAT IS CLAIMED IS:

1. A method for producing a choline-fortified, ready-to-eat cereal comprising the steps of:

cooking a blend of cereal ingredients by introducing the blend of cereal ingredients into a cook zone of an extruder to produce a cooked cereal mass; and

blending a source of choline into the cooked cereal mass in a mixing zone of the extruder to produce a choline-fortified cereal mass.

- 2. The method of claim 1 wherein the blend of cereal ingredients includes a cereal grain selected from the group consisting of corn, wheat, rye, rice, oats, barley and mixtures thereof.
- 3. The method of claim 2 wherein the blend of cereal ingredients further includes an ingredient selected from the group consisting of sugar, malt syrup, cocoa powder, milk powder, brown sugar, corn starch, calcium carbonate, salt, corn syrup, a vitamin, a mineral, and mixtures thereof.
- 4. The method of claim 1 further comprising the step of conditioning the blend of cereal ingredients in a conditioning cylinder prior to the step of cooking the cereal.
- 5. The method of claim 1 further comprising the steps of extruding the choline-fortified cereal mass; and cutting the extruded choline-fortified cereal mass into choline-fortified cereal pellets.
- 6. The method of claim 5 further comprising the step of drying the choline-fortified cereal pellets.
- 7. The method of claim 5 further comprising the step of flaking the choline-fortified cereal pellets to produce choline-fortified cereal flakes.

8. The method of claim 5 further comprising the step of toasting the choline-fortified cereal flakes to produce toasted choline-fortified cereal flakes found in the choline-fortified, ready-to-eat cereal.

- 9. The method of claim 5 further comprising the step of puffing the cereal pellets to produce choline-fortified cereal puffs found in the choline-fortified, ready-to-eat cereal.
  - 10. The method of claim 1 wherein the source of choline is lecithin.
- 11. The method of claim 10 wherein said step of blending a source of choline into the cooked cereal mass includes blending lecithin into the cooked cereal mass in an amount to supply at least 5% of the Adequate Intake (AI) of choline per serving of the choline-fortified, ready-to-eat cereal.
  - 12. The method of claim 1 wherein the source of choline is a choline salt.
- 13. The method of claim 12 wherein said step of blending a source of choline into the cooked cereal mass includes blending a choline salt into the cooked cereal mass in an amount to supply at least 5% of the Adequate Intake (AI) of choline per serving of the choline-fortified, ready-to-eat cereal.
- 14. A choline-fortified ready-to-eat cereal produced according to the method of claim
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- 15. A composition comprising a ready-to-eat cereal, said ready-to-eat cereal comprising a cereal grain and a nutritionally significant amount of choline.
- 16. The composition of claim 15 wherein said nutritionally significant amount of choline is an amount supplying at least 5% of the AI of choline per serving of the composition.
- 17. The composition of claim 15 wherein said cereal grain is selected from the group consisting of corn, wheat, rye, rice, oats, barley and mixtures thereof.

- 18. The composition of claim 15 wherein said choline is in the form of lecithin.
- 19. The composition of claim 18 wherein said nutritionally significant amount of choline is an amount of lecithin supplying at least 5% of the AI of choline per serving of the composition.
  - 20. The method of claim 15 wherein the source of choline is a choline salt.
- 21. The composition of claim 15 wherein said ready-to-eat cereal is a flaked ready-to-eat cereal.
- 22. The composition of claim 15 wherein said ready-to-eat cereal is a puffed ready-to-eat cereal.
- 23. The composition of claim 15 further comprising an ingredient selected from the group consisting of sugar, malt syrup, cocoa powder, milk powder, brown sugar, corn starch, calcium carbonate, salt, corn syrup, a vitamin, a mineral, and mixtures thereof.
- 24. A method for producing a choline-fortified, ready-to-eat cereal comprising the steps of:

cooking a blend of cereal ingredients to produce a cooked cereal mass; and blending a source of choline into the cooked cereal mass to produce a choline-fortified cereal mass.

- 25. The method of claim 24 wherein the blend of cereal ingredients includes a cereal grain selected from the group consisting of corn, wheat, rye, rice, oats, barley and mixtures thereof.
- 26. The method of claim 25 wherein the blend of cereal ingredients further includes an ingredient selected from the group consisting of sugar, malt syrup, cocoa powder, milk

powder, brown sugar, corn starch, calcium carbonate, salt, corn syrup, a vitamin, a mineral, and mixtures thereof.

- 27. The method of claim 24 further comprising the step of converting the choline-fortified cereal mass into choline-fortified cereal flakes.
- 28. The method of claim 24 further comprising the step of converting the choline-fortified cereal mass into choline-fortified cereal puffs.
- 29. The method of claim 27 further comprising the step of toasting the choline-fortified cereal flakes to produce toasted choline-fortified cereal flakes found in the choline-fortified, ready-to-eat cereal.
  - 30. The method of claim 24 wherein the source of choline is lecithin.
- 31. The method of claim 30 wherein said step of blending a source of choline into the cooked cereal mass includes blending lecithin into the cooked cereal mass in an amount to supply at least 5% of the Adequate Intake (AI) of choline per serving of the choline-fortified, ready-to-eat cereal.
  - 32. The method of claim 24 wherein the source of choline is a choline salt.
- 33. The method of claim 32 wherein said step of blending a source of choline into the cooked cereal mass includes blending a choline salt into the cooked cereal mass in an amount to supply at least 5% of the Adequate Intake (AI) of choline per serving of the choline-fortified, ready-to-eat cereal.
- 34. A choline-fortified ready-to-eat cereal produced according to the method of claim 24.